

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-15 (canceled)

16. (Currently amended) A medical electrode comprising at least one electrically contactable conductor surface provided with a connecting element, and having at least one uncontacted current-equalizing conductor surface which is arranged at a spacing and electrically separated from the at least one electrically contactable conductor surface and which is free from connecting elements.

17. (Previously presented) The medical electrode as set forth in claim 16 characterized in that the connecting element is a tab.

18. (Canceled) The medical electrode as set forth in claim 16 characterized in that the uncontacted conductor surface is free from connecting elements.

19. (Previously presented) The medical electrode as set forth in claim 16 characterized in that the at least one electrically contactable conductor surface and the uncontacted conductor surface are arranged on a common carrier.

20. (Previously presented) The medical electrode as set forth in claim 16 characterized in that an uncontacted conductor surface at least partially surrounds one or more contacted conductor surfaces or extends along same.

21. (Previously presented) The medical electrode as set forth in claim 16 characterized in that the uncontacted conductor surface is shaped as a circular ring.
22. (Previously presented) The medical electrode as set forth in claim 16 characterized in that an uncontacted conductor surface extends into the intermediate space between two spaced contacted conductor surfaces or into a recess configuration in a conductor surface.
23. (Previously presented) The medical electrode as set forth in claim 16 characterized in that there are provided two uncontacted conductor portions which are curved parallel.
24. (Currently amended) The medical electrode as set forth in claim 16 characterized in that there are provided at least two electrically separated contactable conductor surfaces, wherein one of said conductor surfaces at least partially surrounds another of said conductor surfaces, ~~as viewed in plan.~~
25. (Previously presented) The medical electrode as set forth in claim 24 characterized in that an inner conductor surface is surrounded by an outer conductor surface which extends around the inner conductor surface at a constant gap spacing relative to the outer edge thereof.
26. (Previously presented) The medical electrode as set forth in claim 24 characterized in that an inner conductor surface is of a substantially round circular

configuration and is surrounded by an outer conductor surface in the form of a circular ring.

27. (Previously presented) The medical electrode as set forth in claim 24 characterized in that the outer conductor surface surrounds the inner over an angular range of more than 270°.

28. (Previously presented) The medical electrode as set forth in claim 24 characterized in that at least one inner conductor surface and an outer conductor surface surrounding same each have a respective projecting connecting element for an electrode cable, wherein the connecting elements are arranged laterally one beside the other and parallel to each other.

29. (Previously presented) The medical electrode as set forth in claim 24 characterized in that there are provided two electrically contactable conductor surfaces in different radial positions, the surface areas and peripheral lengths thereof being substantially equal.

30. (Previously presented) The medical electrode as set forth in claim 24 characterized in that at least one conductor surface is of a hook-shaped configuration, the hook surrounding the other conductor surface.

31. (Previously presented) The medical electrode as set forth in claim 24 characterized in that each conductor surface has hook-shaped projections which are

interleaved one into the other.

32. (Previously presented) The medical electrode as set forth in claim 16 characterized in that the outside contour of the conductor surface or surfaces is round.

33. (Currently amended) A method of equalizing the current in a medical electrode comprising the steps of:

providing a medical electrode comprising at least one electrically contactable conductor surface provided with a connecting element, and having at least one uncontacted conductor surface which is arranged at a spacing and electrically separated from the at least one electrically contactable conductor surface and which is free from connecting elements;

connecting circuitry that delivers to or monitors energy from an electrical energy applicator to the at least one electrically contactable conductor;

leaving the uncontacted surface electrically unconnected to said circuitry;

sending an electric current from the electrical energy applicator delivering or receiving an energy transmission from said circuitry to the at least one electrically contactable conductor; and,

equalizing the distribution of the current with the at least one uncontacted conductor surface.

34. (Previously presented) The method according to claim 33 further comprising providing the medical electrode with the at least one electrically contactable

conductor surface and the at least one uncontacted conductor surface arranged on a common carrier.

35. (Previously presented) The method according to claim 33 further comprising providing the medical electrode with the at least one uncontacted conductor surface at least partially surrounding one or more contacted conductor surfaces or extending along same.

36. (New) A medical system comprising:

circuitry selected from the group consisting of circuitry that monitors biopotentials and circuitry that provides electrical energy to a patient;

a medical electrode comprising at least one energy transmission conductor surface having a connecting element electrically connected to said circuitry, and at least one current equalizing conductor surface, wherein said current equalizing conductor surface is not connected to said circuitry, said at least one current equalizing conductor surface spaced from said energy transmission conductor surface to provide improved current density distribution.